# REMARKS

Claims 1-10 and 32 are now pending in the application. Claims 11-31 have been cancelled herein and Claims 1, 2, and 32 have been amended. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

## INTERVIEW SUMMARY

The undersigned wishes to express his appreciation to the Examiner for the courtesy of the telephone interview on January 7, 2009. The claim amendments were discussed relative to the cited references, but no definite agreement was reached.

## REJECTION UNDER 35 U.S.C. § 112

Claims 1 and 32 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Examiner was unclear as to whether objects in the subproblem that are acted on by the second algorithm have already been rescheduled. In response, minor language has been added to each of claims 11 and 32 that is believed to remove this ambiguity.

A minor amendment was made to claim 2 to remove any potential antecedent basis problem regarding the "third algorithm" recited therein. Entry of the foregoing amendments is most respectfully requested.

## REJECTION UNDER 35 U.S.C. § 102(E)

Claims 1-10 and 32 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Slivka (U.S. Pat. Pub. No. 2003/0225600 A1). This rejection is respectfully traversed.

Initially it will be noted that Slivka appears to involve a system that is directed to generating alternative itineraries for a passenger on a disrupted flight. The process establishes a passenger name record (PNR) value for each disrupted passenger. A re-accommodation driver 111 (Figure 1) creates one or more passenger flow model (PFM) input files for use by a PFM process performed by PFM software 116. The PFM input files are used to allow the PFM process to determine alternative itineraries for the disrupted flight that are stored in an output file. The re-accommodation driver 111 may access the output file to perform a re-accommodation process that attempts to rebook a disrupted passenger on an alternate itinerary (paragraph 45). In Figure 3 the operation of the re-accommodation driver 111 is shown. The re-accommodation driver 111 attempts to rebook an alternative itinerary for a given PNR with the same fare class that the PNR initially had (paragraph 46). If that is not possible, then alternative itineraries are checked in an attempt to find one that has the same fare class as what the PNR originally had.

The above described checking is continued for the alternative itineraries until either a successful rebooking is achieved on an alternative itinerary, or until all of the available alternative itineraries are checked and no available alternative itinerary is found that has the same fare class as the PNR's original fare class. At this point the attempted rebooking process would end. However, if the PNR was identified as having

a first class fare class initially, then further checking is made to see if any alternative itineraries are available that have a lower fare class than the first class fare class. If no such itinerary can be found, then the process ends. If an alternative itinerary is found, then rebooking occurs.

The foregoing operation is simply fundamentally different from the method set forth in claim 1 of the present application. Claim 1 calls for various operations that provide a different way to address the passenger rescheduling problem. For the Examiner's convenience, certain limitations of claim 1 are set forth below:

> ...**grouping the objects in the disruption specification to be rescheduled into subproblems,** *wherein each said subproblem is defined by each one of the objects therein having **the same original origin and destination;***
> *applying a first algorithm to each <u>said</u> subproblem* **without allowing varying the origin and destination of the objects in the subproblem,** *and reaching a plurality of initial solutions <u>that represent a rescheduling for each said object in each said subproblem</u>;*
> *identifying a* **subclass of objects that [[are]] <u>have been</u> unsuitably rescheduled in the initial solutions;** *and*
> **applying a second algorithm for rescheduling the subclass <u>of objects</u> that allows varying the original itinerary** *to generate rescheduling solutions for the subclass <u>of objects</u>.*

At least the bold text operations recited in claim 1 are clearly different than what is called for in Slivka. The present method involves several operations where the object (i.e., passengers) are grouped into "subproblems", with each subproblem being such that all of the objects therein have a *common origination and destination.* The first algorithm is applied to each subproblem that produces an initial set of solutions that represents a rescheduling for each object in each of the subproblems. This first algorithm, advantageously, generates the initial solutions in a manner that does *not*

allow modifying the origin and destination of the object. Then a subclass of objects is identified that is determined to have been unsuitably rescheduled in the just-determined initial solutions. A second algorithm is then used on that subclass of objects to further reschedule the subclass of objects in a manner that is allowed to vary the original itinerary. The second algorithm generates further rescheduling solutions for only the subclass of objects that had been determined to be unsuitably rescheduled in the prior operation.

Slivka appears to be concerned with identifying alternative itineraries according to fare class, and then looking to see if a new itinerary can be provided to a PNR that has a fare class that matches the fare class of the original itinerary for a given PNR. Slivka does not appear to be concerned with generating one or more "levels" of rescheduling solutions in accordance with different algorithms, as done by the presently claimed method through its identification of a "subclass" of objects that are deemed to have been "unsuitably" rescheduled. In Slivka, it appears that if the same or a lesser fare class cannot be identified for an alternative itinerary (relative to the original fare class of the PNR), then no further operations are performed.

Independent claim 32, which recites a "third algorithm" applied to the group of rescheduling solutions obtained using the second algorithm, differs even more significantly from Slivka. The hierarchical approaches of claims 1 and 32, through the use of multiple algorithms, enable the generated rescheduling solutions to be tailored to a wide variety of specific criteria to optimize the rescheduling solutions for each subproblem and for each subclass of objects of the subproblems. Accordingly, it is submitted that independent claims 1 and 32 are fundamentally different in the

operations that they recite from what is disclosed in Slivka, and reconsideration and withdrawal of the rejection under section 102(e) is respectfully requested.

## REJECTION UNDER 35 U.S.C. § 103

Claims 2, 4 and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Slivka in view of Yu (U.S. Pat. No. 6,314,361). In view of the remarks presented above, it is believed that this rejection has been rendered moot. The undersigned nevertheless wishes to point out that Yu generally involves rerouting of aircraft, the text at the sections cited by the Examiner (Col. 6, lines 17-45 and Col. 14, lines 26-45) does not disclose or suggest using a third algorithm to modify a specific group that has been previously determined to have been unsuitably rescheduled in a prior operation. Furthermore, in view of the significant differences between Slivka and the claimed subject matter of independent claims 1 and 32, it is submitted that a prima facie case of obviousness has not been made with the Slivka and Yu combination.

Dependent claims 3, 5, 8 and 10 have all been rejected using the Slivka reference in combination with Yu and other references. In view of the remarks concerning independent claims 1 and 32, and the remarks concerning the Slivka and Yu references, it is believed that these rejections have been rendered moot.

## CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is

believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: _Jan. 7, 2009_

By: _(signature)_
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